ECBC

Edgewood Chemical Biological Center

Strategic Plan Summary

ECBC

Mr. Zarzycki addresses the stakeholders of the Edgewood Chemical Biological Center

Department of the Army (DA)

U.S. Army Materiel Command (AMC)

U.S. Army Soldier and Biological Chemical Command (SBCCOM)

RDA Enterprise

SBCCOM Research, Development and Engineering Center (RDEC)

Edgewood Chemical Biological Center (ECBC)

Natick Soldier Center (NSC)

Message from the Technical Director

Some 85 years after the first modern-day use of chemical weapons, our nation faces a greater and growing challenge to our chemical biological defense posture. This challenge requires a myriad of innovative solutions: CB solutions for the soldier, the sailor, the airman, and the marine; CB solutions for emergency responders; CB solutions for those engaged in treaty compliance, in countering the proliferation of CB weapons, in evaluating potential terrorist use of CB materials, and in demilitarization of chemical weapons. The Edgewood CB Center mission statement reflects the diversity of the challenge we face, "To protect the ***warfighter and U.S. interests*** *through the application of science, technology, and engineering in CB defense."*

We entered the 21st century as an organization dedicated, for 83 years, to CB defense. Our value to the nation over these years stems from the unique "hands-on" chemical and biological agent, science and engineering expertise we possess. Enhancement of this competency is fundamental to ECBC's future.

Although ECBC enjoys a proud history of solving the nation's CB problems, the current and future CB work environment requires a continual demonstration of commitment and value. In today's business world, service providers compete and are selected based on best value and customer satisfaction. This is also true in the government business environment. At ECBC, we operate as a viable business. Our priorities are customer satisfaction, cost efficiency, and investment in our future.

Our vision, "the source of choice for CB defense, research, development, and acquisition," reflects our recognition of the fact that our customers have a choice. Our strategic goals and objectives focus on the elements that are required for our success. They address the workforce we need, the technologies that workforce must generate, and the management systems necessary for cost-effective operation.

J. H. ZARZYCKI
Director, Edgewood Chemical Biological Center
Technical Director, SBCCOM RDEC

ECBC - Historical Perspective

ECBC traces its lineage back to 1917 and the entry of the United States into World War I. This was the first war that saw the broad use of chemical weapons and limited use and experimentation with biological agents and toxins. Unprepared for either type of warfare, the War Department on an emergency basis assigned chemical defense work to the Medical Department, chemical munitions to the Ordnance Department, chemical troops to the Corps of Engineers, and, on a voluntary basis, chemical agent research and development to the Bureau of Mines, part of the Department of Interior (due to their experience with toxic mine gases).

Following the consolidation of the chemical activities in the American Expeditionary Forces (AEF) in France during the summer of 1917, the War Department on 28 June 1918 centralized chemical warfare functions and created the Chemical Warfare Service (CWS), a temporary wartime organization. On 1 July 1918, Edgewood Arsenal was formally assigned to the new organization. The CWS successfully provided the AEF with the best protective equipment and was in the process of producing chemical weapons for use in Europe when the war ended.

The Armistice of 1918 ended the wartime mission of the CWS and EA became the focus of all peacetime CWS field activities. The CWS school and proving ground, its Research Division and the gas mask factory all moved to EA. In 1920, a new National Defense Act declared the CWS a permanent organization of the Regular Army. In 1937, due to the horrific effects of chemical warfare, EA was producing over 50,000 M1A2 gas masks per year in preparation for future conflicts.

In 1941 when the U.S. entered World War II, the CWS was called on again to prepare for CB warfare. The CWS laboratories developed a wide range of new materiel, including incendiary weapons and smoke generators, as well as improved gas masks, collective protection systems and decontaminants. In 1943, America announced the policy that chemical warfare would not be initiated by the U.S., but promised retaliation in kind against any such attack. Although reports of CB attacks surfaced throughout the war, no enemies chose to initiate overt CB warfare against the U.S. The primary reason was the work accomplished by the CWS to prepare for just such an event.

In 1943, U.S. intelligence reports predicted that Japan might use biological warfare. In response to these threats, the CWS initiated efforts to increase the protective capabilities of existing masks and developed special filters to protect against potential biological warfare attacks.

After WW II, the EA again became the Army's peacetime center for research, development and engineering of chemical and biological materiel. During the Korean Conflict in the 1950s, the Chemical Corps contributed to the war effort by providing incendiaries, flamethrowers, smoke, and chemical mortars among other items. During the 1960s, EA supported the Vietnam War primarily in the fields of riot control agents, smoke, incendiary weapons and protective devices.

By the late 1970s, there was a growing concern that the Soviet Union was highly prepared for chemical and biological warfare and was possibly using CB weapons in various conflicts around the world. In 1977, the Chemical Systems Laboratory (CSL) was formed. In 1983, the CSL became the new Chemical Research and Development Center (CRDC). In 1986, the name of the Center was again changed to the Chemical Research, Development and Engineering Center (CRDEC) to better reflect its actual mission. The success of the Center's work was reflected by the agreement of the Soviets to finally discuss a chemical treaty and the actual signing of a bilateral chemical weapons destruction agreement in 1990.

The United States response to Iraq's invasion of Kuwait in 1990 put the Army's CB warfare experience, training, production program, and lessons learned in the limelight. Not since World War I had U.S. troops been sent to face an enemy that, not only had used chemical weapons extensively within the last few years, but also had publicly announced their intentions to use chemical weapons against the United States. Iraq had 1,000 tons of chemical weapons loaded in bombs, artillery rounds, rockets, and missiles. Much of Iraq's biological weapon program remained unknown, prompting expedient response by CRDC to field an innovative biological integrated detection system (BIDS).

In 1993, the Army Materiel Command officially created the Chemical and Biological Defense Command (CBDCOM), a major Army subordinate command and in the process formed the Edgewood Research, Development and Engineering Center (ERDEC). During this time, the ERDEC provided support to the United Nations Special Commission on Iraq (UNSCOM) in the area of chemical and biological specific training, technical advisement and mission planning.

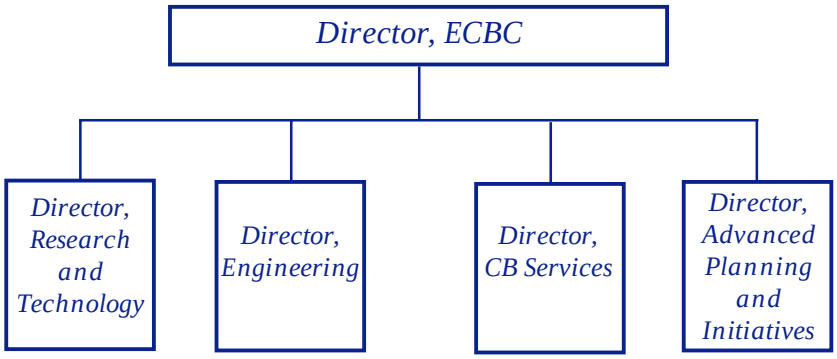
In 1998, CBDCOM and the Army Soldier Systems Command (SSCOM) merged to form the Soldier and Biological Chemical Command (SBCCOM). At the time of this merger, the Edgewood Research, Development and Engineering Center (RDEC) became the Edgewood Chemical Biological Center (ECBC) and the Natick RDEC became the Natick Soldier Center. These newly named entities are the SBCCOM RDEC.

ECBC - Today

People

A diverse workforce of nearly 1,000 employees with a wide variety of scientific, engineering, and technical support disciplines forms the Edgewood Chemical Biological Center (ECBC) located in the Edgewood Area of Aberdeen Proving Ground, Maryland.

An organizational grandchild of the old Edgewood Arsenal, ECBC is a world leader in applying state-of-the-art science, technology, and engineering to chemical and biological defense problems. ECBC provides CB solutions to the warfighter and to U.S. civilian authorities at all levels of government. Traditionally strong in chemical warfare defense related disciplines, recently ECBC has accelerated expansion of capabilities in the biological sciences, bio safety, and biotechnology. Simultaneously in the late 1990's, ECBC engineers and acquisition specialists fielded important biological warfare defense systems.



Organization

ECBC is organized into four directorates. Research and Technology (R&T) Directorate is the source of chemistry, biology, toxicology, and aerosol physics expertise for CB solutions. R&T couples basic science with engineering to identify technology for future development.

Engineering Directorate personnel take transitioned technologies and develop and prove them resulting in the production of end items that are fielded to the joint forces to increase operational effectiveness on the battlefield. State-of-the-art engineering capabilities such as CAE/CAD/CAM and toxic/environmental test chambers are used to facilitate the development and production activities. Engineering Directorate also leads ECBC efforts in Weapons of Mass Destruction (WMD) Domestic Preparedness.

The CB Services Directorate provides a full range of chemical surety and biological materiel management services. The directorate applies its CB agent handling experience and chemical weapons expertise to address munitions clearing and demilitarization problems, assess and reduce risk posture, support CB agent operations, and develop risk management standards.

The Advanced Planning & Inititatives (AP&I) Directorate ensures that ECBC's technological expertise is transitioned to organizations outside the Department of Defense including other government agencies, industry, and our allies throughout the world. AP&I manages an extensive program of

international scientific and technical collaboration in CB defense on behalf of the Joint Services.

PM's

ECBC activities span the CB defense equipment life cycle. R&T Directorate performs basic and applied research that allows technology to transition to the Project Management (PM's) Offices. The Engineering Directorate provides the acquisition qualified technical talent to the PM's to manage product maturation and production. Other members of Engineering Directorate work hand in hand with SBCCOM's Integrated Materiel Management Center at Rock Island to sustain fielded items. In this process, ECBC provides the matrixed services of over 300 scientists, engineers, and support personnel to the Project Manager for Nuclear, Biological and Chemical Defense Systems (PM-NBCDS), Program Manager for Chemical Demilitarization (PMCD), Program Manager for the Assembled Chemical Weapons Assessment (PM ACWA), and the Joint Program Office for Biological Defense (JPO-BD).

The PM's also reach back to ECBC for the underpinning science supporting programs and to perform modeling and simulation, rapid prototyping, and limited production.

Infrastructure

ECBC's infrastructure of laboratories, chambers, computer systems, and fabrication facilities not only support the PMOs but also respond to other national security needs. The most recent ECBC infrastructure addition is the "Critical Reagent Repository" (CRP). This facility was built to support the JPO-Bio's need to store and validate all immunological and DNA-based biodetection reagents. ECBC's facilities, operated by well-trained, experienced workers, ensure national defense needs are met in a safe and environmentally responsible manner.

Customers

An irreplaceable national asset, ECBC counts among its customers nearly every federal agency. Many of these agencies look to ECBC to support their efforts in combating terrorism. As the Department of Defense focal point for all United Nations support in chemical and biological related matters, ECBC provides chemical and biological specific training, advice, and planning to the U.N. Monitoring and Verification Inspection Center.

Essence

While many agencies and organizations today are engaged in matters related to chemical and biological weapons, it is ECBC that remains the "hands on" development and applications leader. ECBC is a dedicated workforce continuing a proud 80-year tradition in chemical and biological warfare defense.

Warfighter Mission

Meeting the needs at every stage of the life cycle

Research

Development

Engineering & Prototyping

Product Sustainment

Leveraged for Critical National Missions

Technical assistance and training for emergency responders

CB protection advice to other government agencies

Mobile forensics laboratory support

Alternative demilitarization technologies

CB field sampling and analysis techniques and technologies

“Protect the warfighter and U.S. interests through the application of science, technology and engineering in chemical and biological defense.”

Mission Statement

“The source of choice for chemical and biological defense research, development and acquisition.”

Vision Statement

Goal 1

An exceptional workforce of government, academia and industry that embraces and is optimized to meet the changing needs of our customers.

Goal owner: Director, ECBC

Director's Intent

Our first goal focuses on people. We will ensure our workforce is ready to meet the changing needs of our customers. ECBC must maintain a critical mass in our core competencies in order to respond to any emergencies throughout the world. We have completed our manpower assessments and planning (MAPs) and are moving to implement them. We will ensure our hiring and retention programs bring the best scientists and engineers to this field and retain the expertise we have. In addition, training and development programs will allow our personnel to grow with changes and promotions in new technology and techniques. Our workforce goes beyond the walls of the buildings in Edgewood, MD. We will expand our partnerships with other government agencies, academia and industry to meet our customer's needs.

Strategic Objectives

1.1 *Maintain a core government workforce of sufficient depth and breadth.*

1.2 *Tailor combined workforce to anticipate and respond to customer needs.*

1.3 *Develop more effective relationships with government, academia and industry.*

Performance Measures of the Goal

1.a *Percentage of MAPs' targets executed*

1.b *Increase in the on-site work years*

Goal 2

Effective processes that ensure the application of the best science, technology and engineering solutions for our customers.

Goal owner: Director R&T, Director Engineering

Director's Intent

Continuous improvement of ECBC's processes is critical for more effective and efficient ways of doing business. The external environment needs to be monitored so we can respond to changes in policy, technology, operational concepts and customer satisfaction. If we improve the way we manage technology and acquisition programs, we will deliver items that better fit the needs of the warfighter, in a shorter amount of time, and at reduced life-cycle costs. This goal encourages a technology investment strategy that incorporates operational concepts from the field, better meeting the needs of the warfighter and all of our customers.

Strategic Objectives

2.1 *Develop technology investment strategies that are responsive to all external drivers (e.g., customers, DoD policy, state of the art technology, operational concepts, etc.).*

2.2 *Work the joint process to help develop technology acquisition and transition processes (use PMs).*

Performance Measures

2.a *Percentage of the top 10 (or more) challenges in CB defense which ECBC develops or partners to develop the solution*

2.b *Percentage of business plan objectives met (to include critical technology transitions)*

Goal 3

Effective tools and support systems for the management of critical resources.

Goal owner: Director, CB Services

Director's Intent

Senior management need effective tools and support systems. ECBC leaders will work to improve the human resource and financial management systems. In addition, our emphasis will be placed on upgrading our facilities, to include the buildings and equipment. The goal is to make the organization run more efficiently so scientists and engineers can do their jobs without being burdened by the infrastructure. Our employees will have support systems so they can focus on developing customer solutions.

Strategic Objectives

3.1 *Establish effective human resource support systems.*

3.2 *Establish effective budget and internal financial management systems.*

3.3 *Establish effective infrastructure support systems.*

3.4 *Establish an efficient decision making process for ECBC.*

Performance Measures

3.a *Percentage of critical tools or systems developed or enhanced*

- *financial*
- *HR*
- *infrastructure*
- *procurement*

The Strategic and Business Planning Process

The capstone to the ECBC planning process is the FY01-05 Strategic Plan. It sets our mission, vision, goals and long-term strategies. It is consistent with the Research, Development, and Acquisition (RDA) Enterprise, SBCCOM strategic plans and higher headquarters guidance. During FY00, ECBC developed their long range plans through the Government Performance and Results Act strategic planning process. The ECBC leadership reviewed the current internal and external operating environment and continued by evaluating ECBC's strengths, weaknesses, opportunities, and threats. This information along with the financial, infrastructure and human resources assessments were considered in developing the ECBC mission, vision, and goals. Each year, the leadership will review the process and adjust to environmental changes. The Strategic Plan will be distributed to both internal and external stakeholders and will be formally revisited every three years.

In addition, the ECBC leadership completed the FY01 Business Plan (Performance Plan), which documents the fiscal year objectives and actions toward satisfying the long-term goals in the Strategic Plan. Definition of specific actions required, assignment of responsibility, and measures of success are included.

The planning cycle closes with an Annual Report, measuring success against objectives and actions in the annual Business Plan and progress against the Strategic Plan. The Director will provide feedback to the ECBC stakeholders as to the "State of the Center" through town hall meetings (as shown on page one).

Process Owner: Director, Advanced Planning & Initiatives

The Government Performance Results Act

Strategic Plan	*Performance Plan*	*Performance Report*
• *Cover at least 5 fiscal years* • *Revise Every 3 years* • *Form planning framework* - *mission statement* - *description of goals and objectives* - *identification of key factors affecting achievement* - *description of program evaluation*	• *Done yearly* • *Link with strategic plan* • *Detailed specific content* • *Include performance goals and indicators* • *Describe processes, skills, technology, human and capital resources* • *Describe how results will be verified*	• *Publish annually* • *Review success of performance goals* • *Evaluate performance plan* • *Explain failures* • *Include summaries of program evaluations completed*

Key Contact List

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